ISCCP REDUCED RESOLUTION SATELLITE RADIANCE DATA

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The International Satellite Cloud Climatology Project (ISCCP) is the first active project of the World Climate Research Program. It is a multinational data collection project focused on collecting a data set that will improve the ability to predict and/or simulate the radiative effects of clouds on climate. For specified cloud parameters, the goals are to archive values for 3-hour periods over the whole globe for 5 years at 30 km resolution.

The task of collecting and processing radiance data from both geosynchronous and polar orbiting satellites began in July 1983. A diagram was shown illustrating the flow of data from the transmitting satellites to the various receiving institutions that handle it. The various stages of processing were then explained in detail, emphasizing Level B3-normalized, reformatted, reduced raw satellite data. The reduction of data by sampling is an essential step in the flow. By the time the ISCCP data reaches the Global Processing Center at GISS, the volume has been reduced by a factor of 1000.

The PCDS will provide access to the ISCCP data set. It should prove to be one of the "cleanest satellite data sets" because it will have been through three filters—that of the operational agency, the Global Processing Center, and the PCDS. The ISCCP data set also includes other correlative data sets delivered in compatible format. It also provides complete documentation for the archiver and important documentation of tape formats for the scientist or programmer.

The Level B3 ISCCP data are now standard products being produced and delivered to the official archive and to the PCDS. The algorithms involved in the analysis of the Level C cloud products continue to undergo scrutiny and improvement. The ISCCP data have many potential applications, such as their use in GCM validation studies, cloud algorithm improvements, and Earth and ocean applications during cloudless conditions.

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PCDS WORKSHOP 2

ISCCP REDUCED RESOLUTION SATELLITE RADIANCE DATA

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Table 1

Data Specification for the International Satellite Cloud Climatology

Parameters--Spatial and temporal averages and variances (or another statistical measure of the shape of the temporal distribution) are required for each of the following parameters.

Amounts	Precision (30-day averages)
Total cloud amount (fraction)* Cirrus cloud amount (fraction)* Middle cloud amount (fraction) Low cloud amount (fraction)* Deep convective cloud amount (fraction)	±0.03 ±0.05 ±0.05 ±0.05 ±0.05
Heights	
Cirrus cloud-top height (km)* Middle level cloud-top height (km) Low-level cloud-top height (km) Deep convective cloud-top height (km)	±1.00 ±1.00 ±0.50 ±1.00
Cloud Top Temperature (°K) for each cloud catagory	/* ±1.00

Cloud Optical Depth
Cloud Size Distribution
Average Narrow Band Radiances (VIS and IR)*

Spatial Averaging--The information is to be averaged over approximately 250-km by 250-km boxes

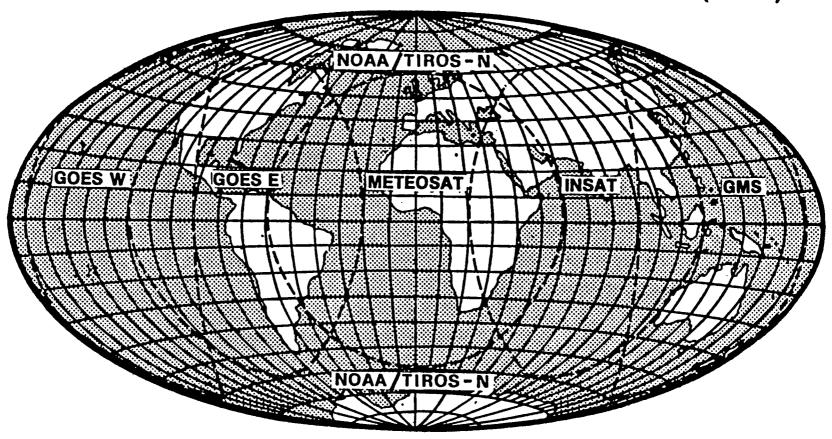
Time Sampling--Every 3 hours, i.e., 8 times a day, centered around the synoptic observation times

Time Averaging--The global cloud climatology will consist of 30-day averages for each of the 8 observing times per day

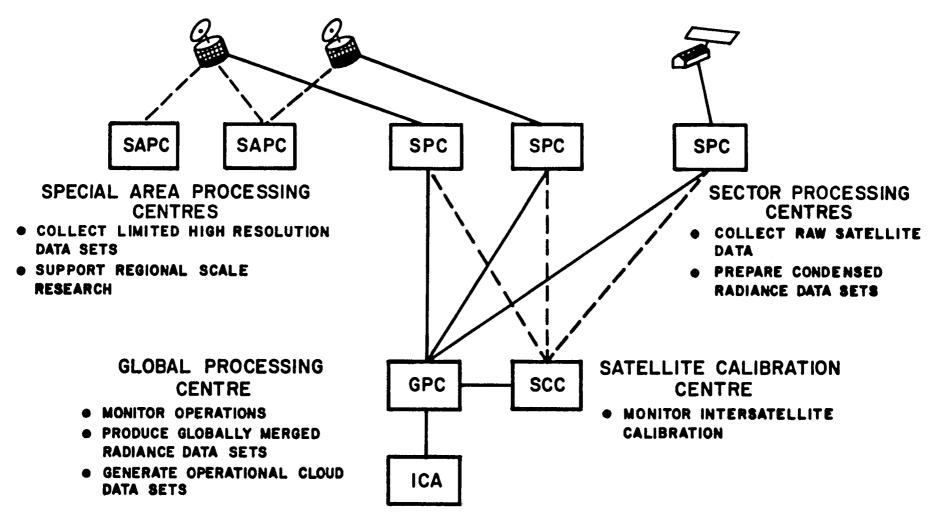
<u>Length of Time Series</u>--5 years

* Highest priority

DATA PROCESSING SECTORS FOR THE INTERNATIONAL SATELLITE CLOUD CLIMATOLOGY PROJECT (ISCCP)



ISCCP DATA FLOW CONCEPT

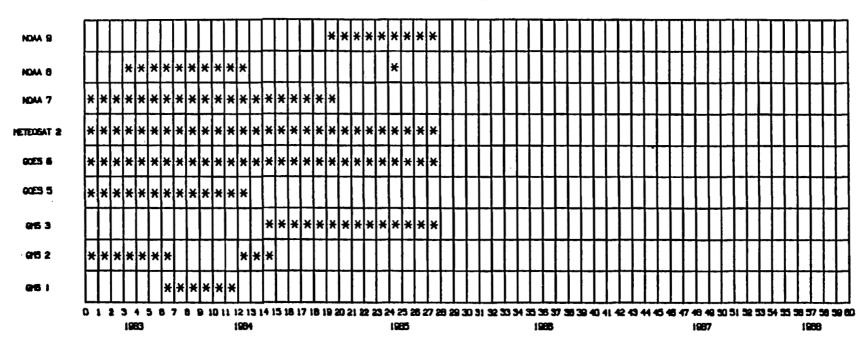


ISCCP CENTRAL ARCHIVE

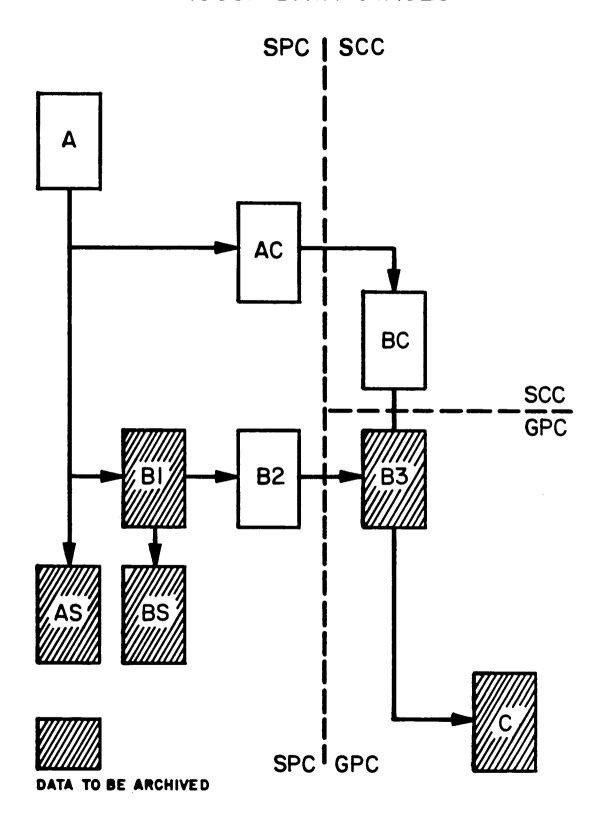
• REPOSITORY FOR PRIMARY DATA PRODUCTS

ISCCP SATELLITE NETWORK

. - SATELLITE TRANSMITTING DATA TO SPC



ISCCP DATA STAGES



SPECIAL FEATURES OF ISCCP RADIANCE DATA

- PREDICTABLE ARRANGEMENT OF DATA BY SATELLITE AND TIME
- INDEX TO TAPE CONTENTS PROVIDED
- EACH IMAGE PIXEL HAS ALL SPECTRAL CHANNELS
- EACH IMAGE PIXEL HAS EARTH LOCATION AND VIEWING GEOMETRY
- ORIGINAL COUNT VALUES AND IMAGE FORM PRESERVED

SPECIAL FEATURES OF ISCCP RADIANCE DATA

- UNIFORM TAPE FORMAT FOR ALL SATELLITES
- ONE SOFTWARE TO READ ALL TAPES PROVIDED
- CALIBRATION TABLES FOR EACH CHANNEL CONVERTS COUNTS TO TWO QUANTITIES
- CALIBRATION TABLES FOR NOMINAL, NORMALIZED AND ABSOLUTE CALIBRATION

SPECIAL FEATURES OF ISCCP RADIANCE DATA

DOCUMENTATION

EXPLAINS CALIBRATION PROCEDURES

PROVIDES RADIOMETER SPECIFICATIONS AND SPECTRAL RESPONSES

EXPLAINS NAVIGATIONAL PROCEDURES

EXPLAINS DATA TAPE FORMAT

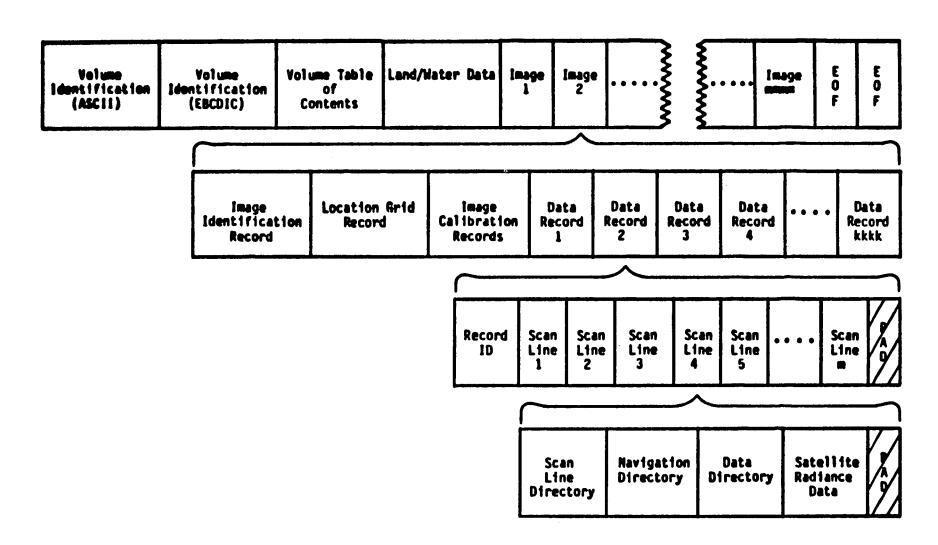


Fig. 5.1. B3 data tape format.

ISCCP B3 TAPE VOLUME HEADER INFORMATION

```
TAPE NUMBER : GPC.B3.##19.#.83244.83251.NOAA-7
ISCCP
BZ INPUT TAPE NUMBERS : CARROS CARIES CERIES CERIES CERIES CERIES
                        CNB186 C88187 C88188
SATELLITE :
              NOAA-7
                                        IMAGE HEADER CODE NUMBER :
                                                                      11
SPC :
              NOA
                                        IMAGE HEADER CODE NUMBER 1
                                                                      1
DATE OF FIRST IMAGE : 83244
                                        LAST IMAGE : 83251
GPC TAPE CREATION DATE : #5/21/85
                                        83 SOFTWARE VERSION NUMBER : 858518
CHANNEL IDENTIFICATION
VIS
        ( .58 - .68 ) MICRONS
                                            IMAGE HEADER CODE NUMBER :
        ( 18.5 - 11.3 ) MICRONS
( .725 - 1.18 ) MICRONS
( 3.55 - 3.93 ) MICRONS
18
                                            IMAGE HEADER CODE NUMBER I
.725
                                            IMAGE HEADER CODE NUMBER :
3.55
                                            IMAGE HEADER CODE NUMBER :
11.5
        ( 11.5 - 12.5 ) MICRONS
                                            IMAGE HEADER CODE NUMBER :
CALIBRATION COEFFICIENTS
                              SLOPE
                                        INTERCEPT
                                                    RMS
                                                            MINIMUM MAXIMUM
VIS NORMALIZED CALIBRATION
                             881.5885 885.8868
                                                  -1.8888 888.8888 888.8888
IR NORMALIZED CALIBRATION
                             ##1.88## ###.####
                                                  -1.5555 558.0555 586.5555
VIS ABSOLUTE CALIBRATION
                             881.8808 888.8888
                                                  -1.5555 855.5555 556.5555
IR ABSOLUTE CALIBRATION
                             881.8888 888.8888
                                                  -1.8888 888.8888 888.8888
ERROR INFORMATION
NAVIGATION FIT ERROR IN LATITUDE (DEGREES)
                                                         . 56
NAVIGATION FIT ERROR IN LONGITUDE (DEGREES)
                                                         .#6
NAVIGATION FIT ERROR IN COSINE SATELLITE ZENITH
                                                         . 51
NAVIGATION FIT ERROR IN COSINE SOLAR ZENITH
                                                         . . .
NAVIGATION FIT ERROR IN RELATIVE AZIMUTH (DEGREES)
                                                         .5#
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TOTAL NUMBER OF IMAGES: 113

FILE NUMBER	IMAGE NUMBER	NOMINAL DATE	HOMINAL GMT	LOCATION 1 / 2	GHT 1	GMT 2	NUMBER RECORDS	NUMBER SCANS	PERCENT BAD	NUMBER PIXELS	DAY/NIGHT		ON (CHANNEL VIS IR			ITY
5	1	83244		-148/ 44	18716	1614	134	1681		65		1 1		1 1	1	1 1	
6	2	83244		-173/ 18	24915	15888	144	1789		65		1 1	,	i 1	1	i i	
7	3	83244	30000	16#/ -6	43188	34886	142	1683	#	65	.	1 1		1 1	1 1	1 1	
8	4	83244	30000	135/ -32		52199	144	17#3		65	•	!!!		1 1	1 1	i i	
9 1 5	5 &	83244 83244	98888	1#9/ -57 84/ -83	755 <i>88</i>	7#397 84596	134 133	1598 1587		65 65		1 1		1 1	1	!!	
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12	á	83244	128888	33/-134		128989	131	1568	ī	65	i	i i		ii	i	ii	
13	ğ	83244	120000	-1/-159	-1	135187	68	733	Ī	65	Ī	i i	,	ii	i	i i	
14	1#	83244	150000	-17/ 174		153379	131	1558		65		1 1	i	1 1	1 '	1 1	
15	11	83244	150005	-43/ 149		171576	114	1362		65	•	1 1		1 1	1 '	1 1	
16	12	83244	188888	-68/ 123		185772	129	1543		65		1 1	:	1 1	1 1	1 1	
17	13	83244	189898		194878	283969	143	1788		65		!!!	,			!!	
18 19	14 15	83245 83245		-145/ 47 -178/ 21	5466 23661	366 14557	131 135	1565 16 <i>0</i> 7	i	65 65		1 1				: :	
2.0	16	83245	39888	163/ -3	41857	32754	144	1787	7	65	;	i i		: i	_ i	: :	
21	17	83245	38888	138/ -29	68857	58952	142	1686	ī	65	ě	i i		ii	i	i i	
22	18	83245	6888	112/ -54		65145	142	1683	Ĭ	65	Ī	i i	l	ii	1	ii	
23	19	83245	98888	B7/ -8#	92449	83343	134	1594	9	65		1 1	j	1 1	1	1 1	
24	28	83245	98088	61/-185		1#1541	125	1584	9	65		1 1		1 1		1 1	
25	21	83245	150000	36/-131		115741	134	1595	g.	65		1 1		1 1	1 1	1 1	
26	22	83245	128888	14/-156		13394#	133	1503		65	•	1 1		1 1	1 1		
27 28	23 24	03245 03245	150000	-14/ 177 -48/ 152		152137 17#335	133 132	150# 1579	:	65 65	•	1 1		1 1	- 1	: :	
29	25	83245	188888	-65/ 126		184535	112	1339	- 7	65	- 7	: :	i	- i i	_ i '	: :	
3#	26	83245	189995	-65/ 181		282732	143	1789		65	•	ii		ii	i	i i	
31	27	83245	218888		239932	228938	135	1616	Ī	65	•	i	;	ii	1	ii	
32	28	83246		-142/ 5#	4232	235128	132	1574		65		1 1	j	1 1	1 :	1 1	
33	29	83246		-142/ 5#	4232	235128	132	1574		65		1 1		1 1	1	1 1	
34	3.6	83246		-167/ 25	22438	13328	137	1635		65		l i	•	1 !	1 1	1 1	
35	31	83246	38888	166/ #	48627	31526	137	1629		65		1 1			-	: :	
36 37	32 33	83246 83246	3888 8	141/ -25 115/ -51		45725 63923	144 143	171 <i>0</i> 169 0	•	65 65	;	- ; ;	i	ii	i '	: :	
30	34	83246	68888	9#/ -76		8212#	134	1595	;	65	7	i i	ĺ	ii	i	i i	
39	35	83246	98886	64/-182		188319	127	1528	į	65	ě	i i	Ĺ	1 1	1	1 1	
48	36	83246	128888	39/-127	123619	114517	132	1578		65		1 1	-	1 1	1	1 1	
41	37	83246	128888	13/-153		132716	134	1688	8	65	5	1 1		1 1	i	1 1	
42	38	83246	150000	-11/-178		15#91#	133	1576		65		1 1	-	1 1	ļ	1 1	
43	39	83246	158888	-37/ 155		165188	132	1575	•	65		1 !	ļ		•	: :	
44 45	4# 41	83246 83246	1899 99 19 999	-62/ 13# -62/ 1#4		1833 <i>07</i> 2 8 15 8 5	112 135	1337 1619	;	65 65		•	i	: i	i	ii	
46	42	83246	218888		218686	215697	143	1718	- 1	65	•	i	Ĺ	ii	i	i i	
47	43	83246	218888	-139/ 53		233896	132	1576	ž	65	š	i	ì	ii	i	1 1	
48	44	83247		-164/ 28		12889	133	1594		65	•	1 1	1	1 1	1	1 1	
49	45	83247	38886	169/ 2		3#287	143	1691		65		-	l	1 1	1	1 1	
5.	46	83247	38885	144/ -22		44483	145	171#		65		-	l	1 1	. !	!!	
51	47	83247	68888	118/ -48		62679	144	17#2		65			1		•	: :	
52 53	48 49	83247 83247	60888 98888	93/ -73 67/ -99		8Ø874 95Ø71	132 125	1578 15 <i>8</i> 7		65 65		;	i I	1 1	i	i :	
54	5.	83247	128888	42/-124		113267	133	1581	7	65	;	•	i	ii	i	ī i	
55	51	B3247	128888	16/-15#		131466	133	1581	-	65	;	•	i	īi	ī	ii	
56	52	83247	158888	-8/-175		145659	133	1574	Ĩ	65	į	Ĭ	ı	1 1	1	1 1	
57	53	83247	150000	-33/ 158		163854	132	1569	Ē	65	8	•	ı	1 1	ı	1 1	
58	54	83247	100000	-59/ 133		182854	111	1327	#	65		•	1	!!	1	1 1	
59	55	83247	180005	-59/ 187		288251	134	16#2	•	65		T .	!	1 1	-	1 1	
6# 61	56 57	83247	21 <i>8888</i> 21 <i>8888</i>	-84/ 82 -135/ 56	2#5357	214449 232643	142 134	1787	:	65	•	1	1	; ;	1	i i	
- 1	31	#J64/	C 1 = 2 2 3	-1337 30	. / 43	636843	134	1683	-	65	•	•	•	• •	•	- •	

62	58	83248	8	-161/ 31	16394	18043											
63	59	83248	38888	8/ 5		18842	135	1612		65		1	1				_
64	6.07	83248	30000		33221	25841	144	1786		65	Ĩ	•	•	•	1 !		1
65	61	83248	68888	147/ -19		43239	143	1788		65	ě	•	•		1 1	1	1
66	62	83248	98888	122/ -45		61436	144	1785	i i	65	ï	•	. !	į	1 1	1	1
67	63			71/ -96		93833	143	1786	•	65	i	:	1	1	1 1	. 1	ı
60		83248	128888	45/-121		112832	112	1362	7	65		. !	į	1	1 1	1	1
	64	83248	128888	45/-121	121135	112#33	183	1236					1	1	1 1	1	1
69	65	B324B	128888		13#395	138231	133	1589	-	65	•	1	1	1	1 7	1	1
7.5	66	83248	150000	-5/-172	153532	144428	133	1586		65		1	I.	1	1 7	1	1
71	67	83248	158888	-3#/ 161	171738	162626	131	1564	-	65		1	1	1	1 1	1	ì
72	68	83248	185555	-56/ 136		188826	112			65	5	1	1	i	i i	i	i
73	69	83248	188888	-56/ 11#		195023		1334		65		1	1	Ĭ	ii		·
74	78	83248	218888		284127	213222	134	1599		65	•	1	ì	i			•
75	71	8324B	218888	-132/ 59	524		143	1718		65		ī	i	i	: :		•
76	72	83249		-158/ 34		231419	132	1583		65	ø	i	i	•	: :		•
77	73	83249	ī		14723	5619	135	1621		65		i	i	•	: :	. :	
78	74	83249	38888		32919	23817	144	1785		65	i	i	:	:		. !	1
79	75	83249		158/ -16	51118	42816	144	1789		65	7	•	•		1 1	. 1	1
8.0			60888	125/ -42	65317	6#21#	145	1789		65		:		ı	1 1	1	ı
81	76	83249	68888	99/ -67	83515	74488	132	1586	-	65		•	ı	ļ	1 1	1	1
-	77	83249	98888	74/ -93		92681	143	1785	7	65	-	į	ı	1	1 1	1	1
82	78	83249	98488	48/-118		118888	116	1482	ī		ø	ı	1	1	1 1	1	1
83	79	83249	125455	23/-144	134186	124997	131	1561		65	•	ı	1	1	1 1	1	1
84	8.5	83249	128888	-2/-169		143196	132	1573	-	65		1	1	1	1 1	1	i
85	81	83249	150000	-27/ 164		161389	132	1577		. 65		1	1	1	1 1	1	í
86	92	83249	188888	-53/ 139		175585	112			65		1	1	1	i i	ĭ	ĭ
87	83	83249	188888	-53/ 113	184692	193784		1344		65		1	1	i	ii	i	i
8 8	84	83249	215885		2#289#	211982	133	1589		65		1	1	i	ii	i	•
89	85	83249	218888		235284		143	171#		65		1	ĭ	i	i i	•	•
9#	86	8325#		-155/ 37		238178	133	159#	ø	65		1	i	i	: :	•	:
91	87	0325#		179/ 11	13479	4374	135	1689		65	#	i	i	•	: :	•	:
92	88	8325#	38888		31675	22567	143	1692		65		ī	•	:	: :	•	i
93	69	8325#	68888	153/ -13	4587#	48767	142	168#		65	ž	i	•	•	: :	•	1
94	9#	8325#		128/ -39	64878	54961	145	1789		65		•	:	:	: :	i	ı
95	91		68888	1#2/ -64	82263	73154	133	1583	ì	65	7	•	:			1	ı
96		8325#	98888	77/ -89		91354	143	1758	Ĩ	65		•	•	1	1 1	. !	1
97	92	8325 <i>8</i>	98888	51/-115		1#5552	116	1398	ì	65		•	•	Į.	1 I	ı	1
98	93	8 325 <i>8</i>	125555	26/-14#	132856	12374B	132	1577	į	65	7			1	1 1	1	1
	94	8325#	128888	# /-166	151851	141943	132	1574				1	1	1 !	1 1	ı	1
99	95	8 325 #	150000	-24/ 168	165249	168141	133	150#	;	65	•	1	1	1 1	1 1	1	1
188	96	B325#	180000	-58/ 142	183443	17434#	113	1349	•	65		1	1	1 '	1 1	1	1
1#1	97	8 325#	185555	-5#/ -49	183444	183428	135	1552		65		1	1	1 1	1 1	1	1
182	98	₿ 325 ₽	218885		281641	218737	143			65		1	1	1 1	1 1	1	1
183	99	8325#	218888		234#38	224936		171#		65		1	1	1	i i	i	ī
154	188	03251	•		12237	3133	136	1626		65		1	1	i	ii	i	i
185	181	83251	Ĩ	-177/ 15	3#435		133	1587		65		1	1	1	ii	i	i
106	182	83251	38888	156/ -18	44634	21333	133	1572		65		1	i		íi	·	•
187	103	03251	68888	131/ -35		3553#	144	1789	•	65	5	1	ĭ		•	•	:
1#8	184	03251	68888		62832	53728	145	17#9		65		i	i		: :	•	:
189	1#5	83251		185/ -61	81#31	71927	134	1598		65		ī	i		: :	•	:
118	106	83251	98888	8#/ -86	95229	9#125	143	1711		65	Ī	i		•	: :	ŀ	
iiī	197		98888	54/-112	113427	184323	116	1484		65	7	i	:			:	
iiż		83251	128888	29/-137	131626	122522	132	1579	•	65	7	:	:		: !	į	i
113	1#8	83251	128888	3/-163		148721	133	1577	Ĩ	65	=	:			i. I	1	1
	1#9	83251	150000	-21/ 171		154919	133	1581	7	65	7	:		į į	1 1	1	1
114	118	83251	150000	-47/ 145		173117	113	1345	ī	65	7	i	1	1 1	1 1	1	1
115	111	83251	188888	-47/ 12 #	182222	191316	135	1557	7				i	1 1	1 1	1	1
116	112	83251	219888		288419	285518	143	17#9	7	65		1	1	1 1	1 1	1	1
117	113	83251	218888		232816	223788	135	1612	7	65	•	ļ	ļ	1 1		1	1
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TEMPORAL COVERAGE

DAY OF MONTH

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6	1 1	1 1	1 :	2 I	2	1	l 1 2 1	1 1 2	2	 #					 	# ## 	 #	# # T	 #					! ! #	[5 		! ! #					
9	 2 	1 2	 	1	1	1 1	l 1 2 1	l l 2)) 2)	1 1 #	 #		 5 	! ! #	! ! # !	! ! 5	 # 	 #	 # 	! ! #		#		! ! 5	#	! ! #				1 5		
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10	1 2	1 2	1	2 i	2	2	i i 2	i 2 	1		i i <i>S</i>		i #	i 		i ! #			i #							i 8						
21		1	1	2 i	2	2	i ! 2	i ! 2	2	i i s	i ! #							i ! s								 #	#					
	<u>i</u>	<u>i</u>	<u>i</u>			i 	i 	i 	! 	i 	i 	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	i 	<u>i</u>	<u>i</u>	<u>.</u>	<u>i</u>	i	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u> 	i 	i	<u>i</u>	<u>i</u>	i 	<u>i</u> i

OUTPUT FROM SAMPLE PROGRAM USING BEREAD SUBROUTINE TO ACCESS BE-FORMATTED DATA

READ AND DECODE IMAGE NUMBER: 5
FOR SCAN LINE 288 PRINT DATA VALUES AND ANGLE VALUES FOR ALL PIXELS

IMAGE DESCRIPTION

```
IMAGE SEQUENCE NUMBER .
SPC ID NOA
              CODE
                      1 SATELLITE ID NOAA-7 CODE 11
JULIAN DAY (DDD): 244 YEAR (YYYY): 1983 MONTH: 9 DAY: 1
NOMINAL GHT (HHMMSS) : 68888 HOUR : 6 MINS : 8
NUMBER OF DATA RECORDS : 134
NUMBER OF SCAN LINES : 1598
PERCENTAGE BAD SCAN LINES :
GHT (HHMMSS) OF BEGINNING SCAN LINE :
                                     63949 ENDING I
                                                     82617
DATE (YYDDD) OF BEGINNING SCAN LINE :
                                    B3244 ENDING :
                                                     83244
NUMBER OF PIXELS / SCAN LINE :
                               65
NUMBER OF ACTIVE CHANNELS 1
CHANNEL 1
             VIS
                         .58 -
                                   .68 ) MICRONS
                                                            CODE :
CHANNEL 2
              IR
                      ( 18.58 - 11.38 )
                                                            CODE :
                                                                      Z
CHANNEL 3
              . 725
                      ( .725 - 1.18 ) MICRONS
                                                            CODE :
                                                                      3
CHANNEL 4
             3.55
                      ( 3.55 - 3.93 ) MICRONS
                                                            CODE :
CHANNEL 5
             11.5
                      ( 11.58 - 12.58 ) MICRONS
                                                            CODE :
CALIBRATION FLAGS (VIS IR);
                           1
DAY OR NIGHT FLAG
ASCENDING EQUATOR CROSSING LONGITUDE OR SUBSATELLITE POINT LONGITUDE
                                                                    1#9 GHT
DESCENDING EQUATOR CROSSING LONGITUDE OR SUBSATELLITE POINT LATITUDE
                                                                    -57 GHT
```

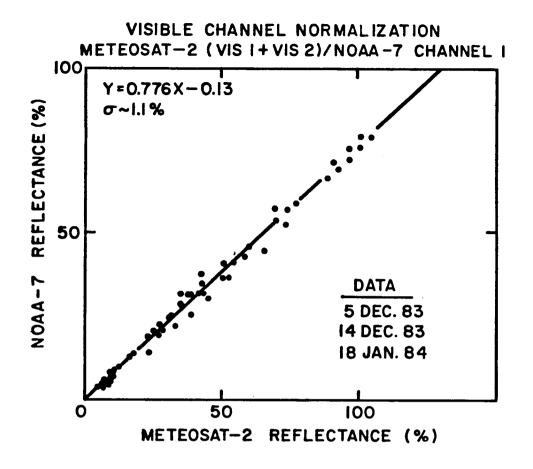
755##

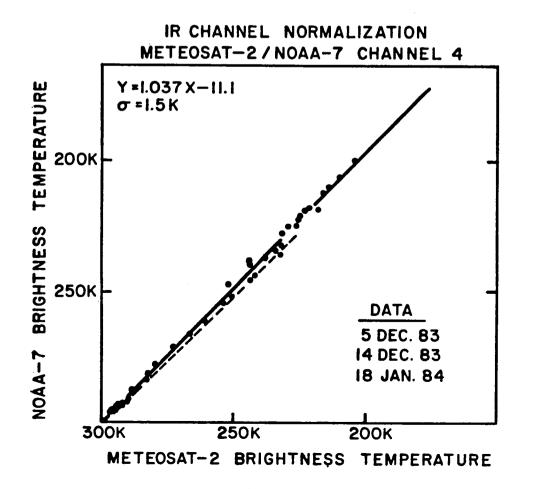
78397

LOCATION GRID

LATITUDE

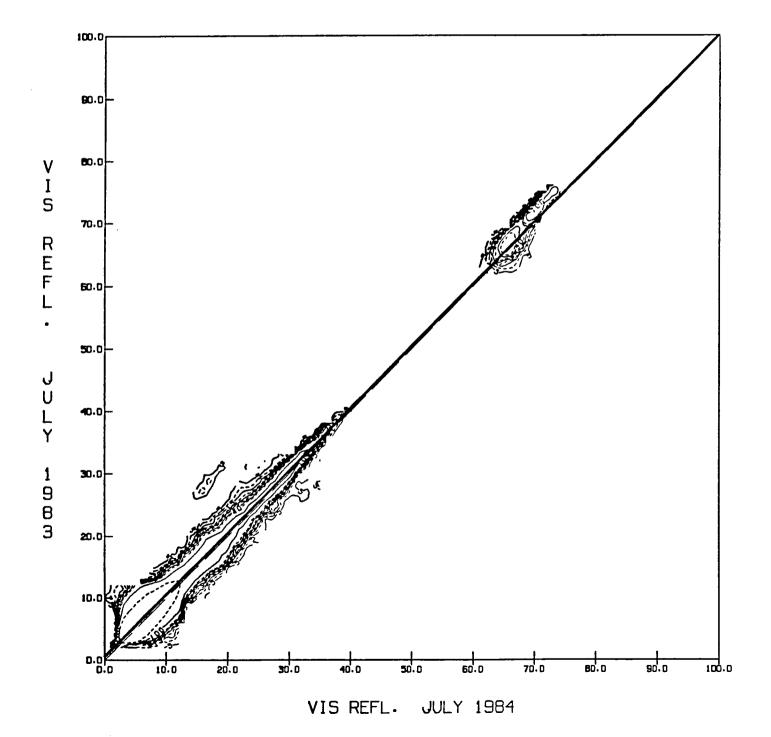
LONG	-85	-75	-65	-55	-45	-35	-25	-15	-5	5	15	25	35	45	55	65	75	85
5 1	2						•									121	639	2211
15 1	2					8	ø	•								63	578	1591
25 1	Z	•				s				8	.#					38	367	1451
35	Z								•							43	386	1391
45 1	Z										•					92	355	1341
55 1	3															283	486	1271
65 I 75 I	8		-								•				61	386	458	1101
85 I	, ,													48	367	611	461	1521
95 1	15	•	-	-	•							28	217	554	8#6	774	391	881
185 1	43 44					25.0			71	219	466	811	1#97	1286	1815	619	281	791
115	66	113 194	117 356	15#	219	352	555	861	1186	1467	1595	151#	1224	869	567	353	195	641
125 1	8.5	292		688	936	1288	1529	1553	1366	1874	743	472	296	186	126	86	97	461
135	9.5	398	639 766	1#2# 761	1165	1811	725	397	173	38	Į		ø		s			441
145	185	459	591	35#	515 41	185	15	-			•							141
155 i	119	453	371	358	• • •		- :							•		•		91
165 1	126	397	281	• • •	- :	-	:	-									•	• !
175 1	135	347	97			-	- :											21
185 i	138	384	49	- :		7	:	-	-		•					•		31
195 1	144	278	28	. :		7		-	•	•				•			•	21
285 1	139	277	15	- 2		~	:	-	-	•			9					21
215 i	139	279	23	- :		- 2	:	•		•					•			21
225 1	138	299	42	7		- :				:								21
235 i	136	335	85	- 7					- :	7	-	-			- :	-		31
245 1	132	392	178		- 1		7			:	- :	•	-	-	•		-	151
255 i	117	441	336	38	- 7	- 1			- :	7	- :	•		- 1	:		:	1#1
265 1	110	466	546	271	12		7	- 7		7	:		-	- :			15	241 441
275 I	92	417	749	674	383	79	7			- :	- :		7				154	751
285 1	01	314	693	1837	1863	834	489	213	45	- 2			:	- 2			193	721
295 I	66	214	412	7#5	1879	1398	1524	1482	1127	775	48.5	279	158	92	44	64	392	1241
385 1	52	123	162	217	325	513	791	1126	1437	1637	1623	1401	1568	725	488	423	688	1411
315 1	45	0		- 1				49	173	374	685	1848	1274	1258	965	79#	729	1761
325	18	Í	Ĭ	Ĩ	Ĭ	Ē	Ĭ	1		3/2		74	332	686	895	1838	919	1911
335 1	1.0	•	Ĩ	Ĭ	Ĭ	Ĭ	ě	7	7	7	7.	. '}	J32	92	441	803	842	2151
345	8		Ĭ		Ĭ		ī	ř	7	7	7	7	2	7,	92	495	858	23#1
355	3			Ī	Ĭ	ì	Ĭ	ř	7	7	7	7	7	7	7	262	786	2351
									•	. •	•	-	•	•	•	-01		230,





NOAB307 VS NOAB407

MEAN X:	8.7	R:	0.99
MEAN Y:	9.2	SLOPE:	1.00
DIFF(X-Y):	0.5	Y INT:	0.5
SDEV X:	9.4	RMSE:	1.6
SDEV Y:	9.5	TOT PIX:	182314



CORRELATIVE DATA CONTENTS AND FORMAT

ATMOSPHERIC

DAILY OZONE COLUMN ABUNDANCE	(2.5°)	(TOVS)
6 HR HUMIDITY PROFILE	(2.5°)	(TOVS)
6 HR TEMPERATURE PROFILE	(2.5°)	(TOVS)
SST SHIP OBSERVATIONS	(2.5°)	(NMC)
7 IID CUDEACE TEMPERATURE REPORTS	45 000	

3 HR SURFACE TEMPERATURE REPORTS (1.25°) (NMC) 3 HR SURFACE OBS (HUMIDITY, CLOUDS) (1.25°) (NMC) WEEKLY SNOW COVER (1.25°) (NOAA) WEEKLY SEA ICE COVER (2.5°) (NAVY)

FORMAT

SURFACE

MODEST EXTRAPOLATION BUT FLAGGED

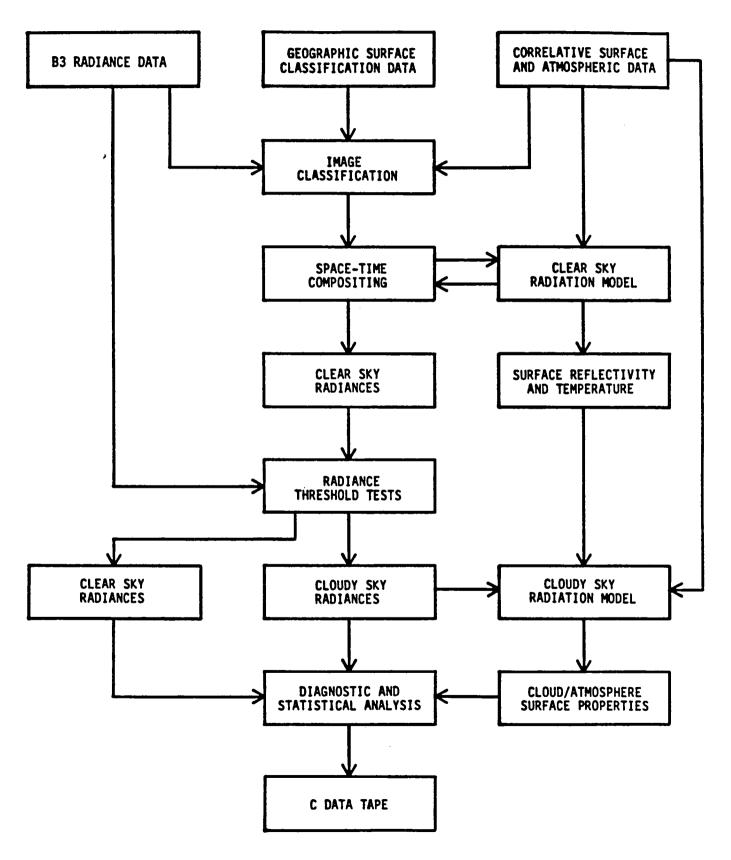
COMPATABLE MAP GRIDS

SOFTWARE FOR REMAPPING

WEEKLY SINGLE VARIABLE FILES

ADDITIONAL GEOPHYSICAL MAPS (LAND/WATER, TOPOGRAPHY, VEGETATION)

ISCCP CLOUD ALGORITHM



PROPOSED CLIMATOLOGY TAPE CONTENTS

RESOLUTION: 3 HR, 250 KM ALSO MONTHLY, 250 KM

CLOUD TYPES : TOTAL, LOW, MIDDLE, HIGH, CIRRUS, DEEP CONVECTIVE

CLOUD PROPERTIES : AMOUNT,

OPTICAL THICKNESS,

TOP TEMPERATURE AND PRESSURE

ANALYSIS FLAGS

RADIANCE PROPERTIES: TOTAL RADIANCES,
CLEAR SKY RADIANCES

ATMOSPHERIC PROPERTIES: TEMPERATURE AND MUMIDITY PROFILES
OZONE COLUMN ABUNDANCE

SURFACE PROPERTIES: TEMPERATURE
VISIBLE REFLECTANCE
SNOW/ICE

STATISTICS : MEAN (UNCORRELATED)

VARIANCE

CLUSTERS (CORRELATED)

ISCCP PILOT STUDIES

- CLOUD ALGORITHM INTERCOMPARISON AND DATA COMPRESSION STUDY
- RADIANCE DATA FORMAT DESIGN TESTS
- ALGORITHM SENSITIVITY AND ERROR TESTS
- POLAR REGION CLOUD ALGORITHM STUDY
- CLOUD CLIMATOLOGY AND CLIMATE MODEL COMPARISON STUDY